



313839



March 18, 2009

Mr. Randall Griffin  
Chief Regulatory Counsel  
The Dayton Power and Light Company  
1065 Woodman Drive  
Dayton, Ohio 45432

Re: Access Agreement for Remedial Investigation and Feasibility Study  
South Dayton Dump and Landfill Superfund Site - Moraine, Ohio

Dear Mr. Griffin:

Subsequent to our March 2, 2009 conference call regarding access to the Dayton Power and Light Company (DP&L) site at 1900 Dryden Road, the South Dayton Dump Potentially Responsible Parties (PRP) Group has carefully reviewed the results of the Vertical Aquifer Sampling (VAS) program conducted from November 2008 through mid-January 2009. The PRP Group has had further discussions about the required scope for off-site sampling with our environmental consulting firm as well as U.S. EPA technical personnel. The attached memorandum and associated figures describe the locations where the PRP Group would like to place VAS sampling and monitoring well locations. We have expanded our original request from one to three locations based on a comprehensive review of the VAS sampling results. The draft report on VAS sampling activities was just received by the PRP Group last week.

As we discussed on the conference call, VAS sampling to the west of the DP&L site fence in the Dryden Road right-of-way is not feasible due to safety concerns and spatial/topographical constraints. Dryden Road traffic and overhead power lines pose undue risk for operation of the VAS drilling rig. The significant size of the VAS drilling rig is illustrated in photographs at the following internet address: [www.boartlongyear.com/web/guest/94](http://www.boartlongyear.com/web/guest/94). Furthermore, it can take 2 days or more to complete a single VAS sampling location. It is not practical to block a public road or protect the drilling rig from vandalism for that period of time.

As stated several times previously, the PRP Group is willing to make reasonable modifications to the access agreement to address DP&L concerns and to provide reasonable compensation for access to the DP&L site. The PRP Group would appreciate DP&L's serious consideration of our request. Please contact me for questions at 847-657-4843 or [kbrown@itw.com](mailto:kbrown@itw.com).

Sincerely,

Ken Brown, CHMM  
Manager of Environmental  
and Chemical Compliance  
South Dayton Dump PRP Group Representative

Enclosures

cc: Tom Nash, U.S. EPA Region 5  
Karen Cibulskis, U.S. EPA Region 5



**CONESTOGA-ROVERS  
& ASSOCIATES**

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## MEMORANDUM

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TO: South Dayton Dump & Landfill Site  
Potentially Responsible Party (PRP) Group

REF. NO.: 038443-83

FROM: Adam Loney/ca/5

DATE: March 17, 2009

C.C.: Steve Quigley, CRA

RE: **Proposed Investigative Locations on Dayton Power & Light (DP&L) Property**

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This memorandum proposes locations for groundwater investigation on the DP&L property located at 1900 Dryden Road in Moraine, Ohio (DP&L Property) and provides the rationale for each of the proposed locations.

During the recently completed groundwater investigation at the South Dayton Dump & Landfill Site (SDD Site), Conestoga-Rovers & Associates (CRA) identified areas of groundwater contamination along the eastern boundary of the SDD Site, which is immediately adjacent to the DP&L Property. Groundwater sampling locations with volatile organic compounds (VOCs) at concentrations greater than the federal Maximum Contaminant Levels (MCLs) are shown on Figure 1.

Groundwater impacts associated with benzene and chlorinated aliphatics (e.g., trichloroethene) have been identified in groundwater samples from VAS-14<sup>1</sup> and VAS-21 and monitoring well MW-210, all located along the eastern boundary of the SDD Site. Free-phase product was encountered at VAS location VAS-4, which is also located on the eastern boundary of the SDD Site. The highest concentrations of chlorinated aliphatic groundwater contaminants in groundwater samples from VAS-14 and VAS-21 were present in the samples collected from depths of 60 to 65 feet below ground surface (ft bgs) and 69 to 74 ft bgs, respectively. The highest concentration of benzene at VAS-21 was detected in a groundwater sample collected from the 94 to 99-ft bgs interval. The presence of higher concentrations of contaminants in deeper samples, rather than shallow samples (where groundwater would be in contact with or immediately beneath fill material on the SDD Site), is indicative of an off-site upgradient source of contamination.

The majority of groundwater samples collected in the VAS investigation contained lead and arsenic at concentrations that were greater than the MCLs for these metals.

CRA completed monthly groundwater elevation monitoring at existing monitoring wells on the SDD Site between July 2008 and February 2009. Based on these groundwater elevation data, groundwater flow beneath the eastern portion of the SDD Site is typically to the west in the northern portion of the SDD Site and to the southwest in the southern portion of the Site. Groundwater elevation data from December 2008, which are typical of recent groundwater elevations beneath the SDD Site, are provided on Figure 2.

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<sup>1</sup> VAS- vertical aquifer sampling location

Groundwater elevation data collected 1989 by Hunter/Keck on behalf of DP&L indicated that groundwater flow beneath the DP&L Property is also to the southwest. The Hunter/Keck groundwater elevation contour map is provided in Attachment A. Given the westerly and southwesterly groundwater flow directions, the SDD Site is downgradient of the DP&L Property. It is possible that the contamination identified along the eastern boundary of the SDD Site is the result of groundwater contamination originating on, or migrating beneath, the DP&L Property.

In 1990, a 20,000 gallon steel underground storage tank (UST) was removed east of the Service Center building on the DP&L Property. The UST reportedly contained mineral oil and petroleum hydrocarbon impacted soils were removed from the UST excavation. The contractor, Bowser-Morner, noted that the soil impacts appeared to be the result of contamination from sources other than the UST. Soil samples were analyzed for PCBs and total petroleum hydrocarbons (TPH). Samples were not analyzed for benzene or chlorinated aliphatics. Other activities which were reportedly conducted by DP&L in the area of the mineral oil UST included: oil handling, processing, and storage; PCB-contaminated oil handling and storage; and transformer maintenance. A figure showing the locations of the mineral oil UST and the oil- and transformer-related activities is provided in Attachment B.

In 1989, two 10,000-gallon gasoline USTs were removed to the west of the Garage building on the DP&L Property. A figure prepared by QST Environmental for DP&L in 1994 and provided to the Ohio Bureau of Underground Storage Tank Regulations (BUSTR) identified a total of nine additional USTs, which contained hoist oil, antifreeze, oil, used oil, kerosene, and gasoline. The eight USTs were removed in the mid-1980s according to the information provided on the figure. Free-phase product was encountered on the surface of the groundwater in the area of the former gasoline USTs. Groundwater samples from monitoring wells installed in the area immediately surrounding the UST contained high concentrations of benzene, toluene, ethylbenzene, and xylenes (BTEX). The highest concentrations of BTEX were identified in groundwater samples collected from wells located along the western boundary of the DP&L Property. Groundwater samples were not analyzed for chlorinated aliphatics. DP&L has been conducting remediation activities in this portion of the DP&L Property off and on since approximately 1990.

The boring logs and reports available for the DP&L Property indicate that fill, consisting predominantly of sand, rock, foundry sand, fly ash, and cinders, is present beneath much of the DP&L Property at thicknesses ranging from 4 ft to 21 ft. The figure included in Attachment B indicates that two large ash pits were present to the east of the Service Center building on the DP&L Property. The fill material and ash represent a potential source of groundwater contamination, especially with respect to metals.

In order to further investigate the potential upgradient source(s) of groundwater contaminants identified beneath the SDD Site, CRA recommends an investigation of groundwater conditions beneath the DP&L Property. CRA proposes that three VAS borings be installed on the DP&L Property at the locations shown on Figure 2.

VAS-26 will be installed to investigate deeper groundwater conditions upgradient of VAS-21 and MW-210 and in the area of the gasoline UST on DP&L Property.

VAS-27 will be installed to investigate groundwater impacts upgradient of VAS-14 and downgradient of the location of the mineral oil UST and oil processing areas.

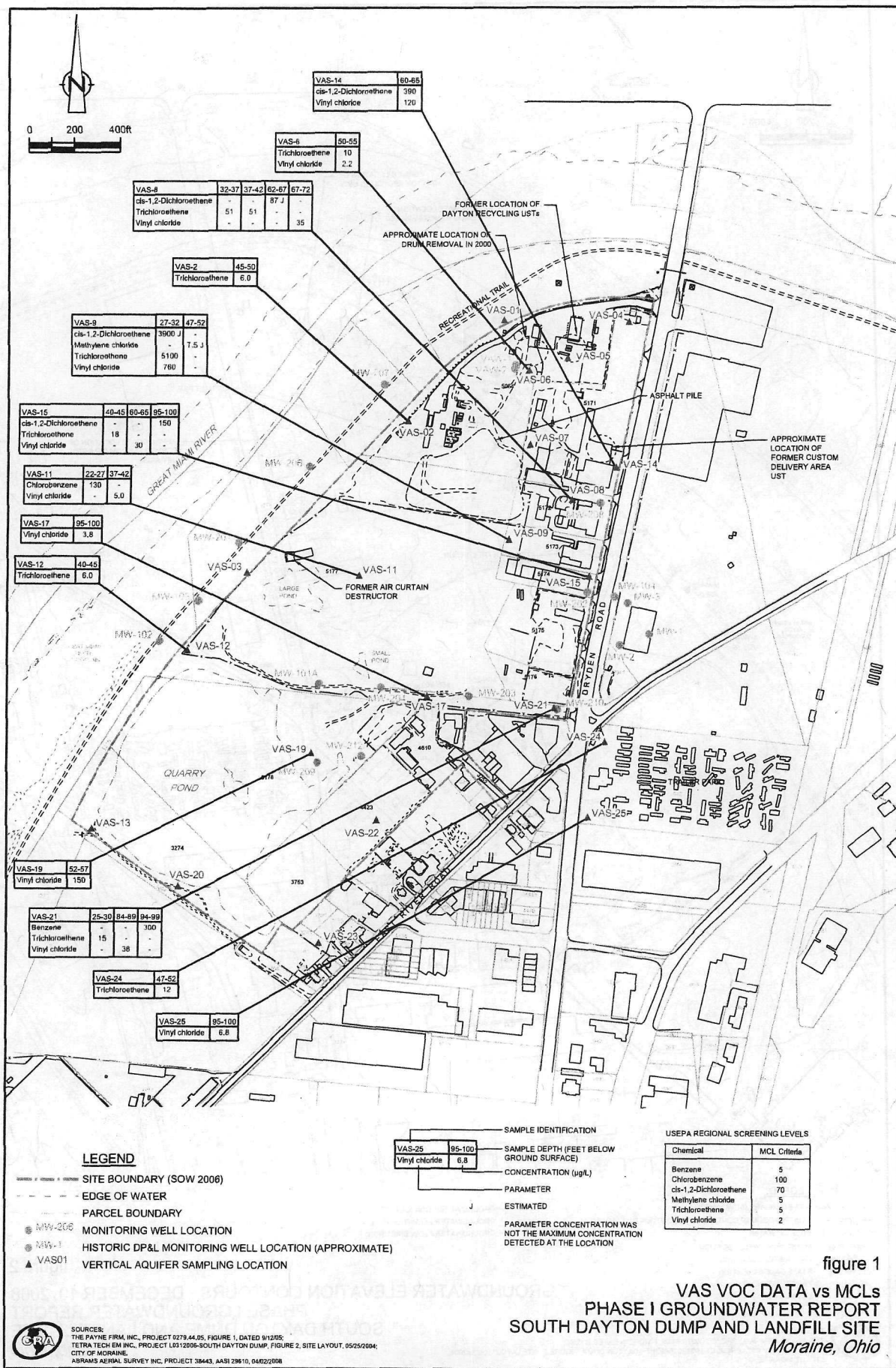
VAS-28 will be installed to investigate conditions near the location of VAS-4, where free product was identified, and adjacent to the Service Centre building on the DP&L Property.

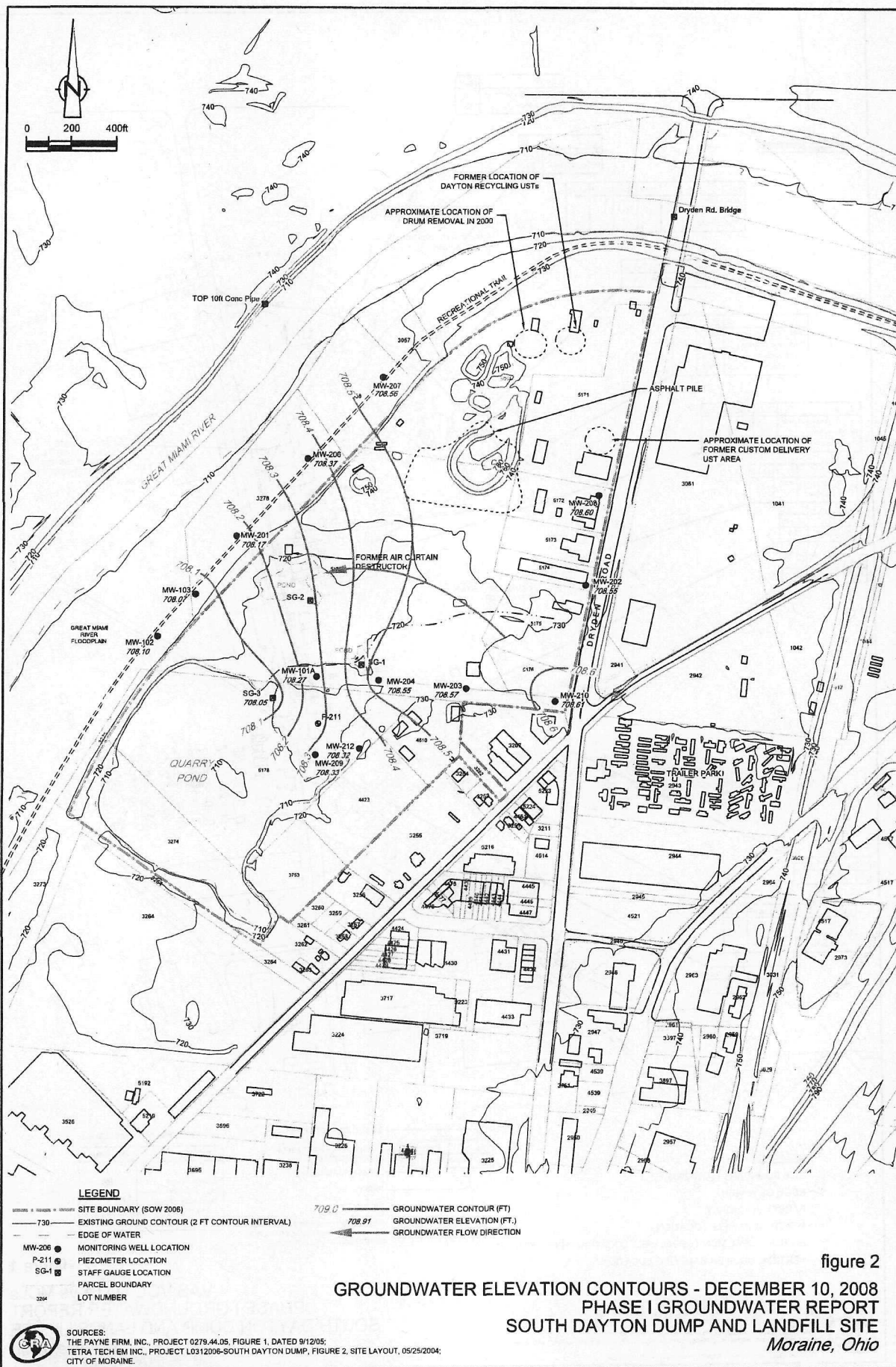
All three VAS locations will also serve to evaluate the concentrations of lead and arsenic in the groundwater beneath the DP&L Property. Groundwater samples will be collected at 5-foot intervals commencing at the first interval beneath the water table and proceeding to 100 ft bgs. The groundwater samples will be analyzed for volatile organic compounds and total and dissolved arsenic and lead. The VAS boreholes will be left open pending receipt of the laboratory analytical results. Once the analytical results are received from the laboratory, a monitoring well(s) will be installed at each location with the screen interval set at the depth(s) corresponding to the highest contaminant concentrations. The new and existing monitoring wells on the DP&L Property will be surveyed to allow for their use in evaluating groundwater elevations. Groundwater samples will be collected from each new and existing permanent monitoring well location for analysis of the following parameters:

- Target Compound List (TCL) VOCs;
- TCL semi-volatile organic compounds (SVOCs);
- TCL pesticides and herbicides;
- TCL poly-chlorinated biphenyls (PCBs);
- Target Analyte List (TAL) metals (dissolved and total); and
- monitored natural attenuation (MNA) parameters.

Two rounds of groundwater samples will be collected from all new and existing monitoring wells. It should be noted that additional monitoring may be required by USEPA.

Should you have any questions on the above, please do not hesitate to contact us.







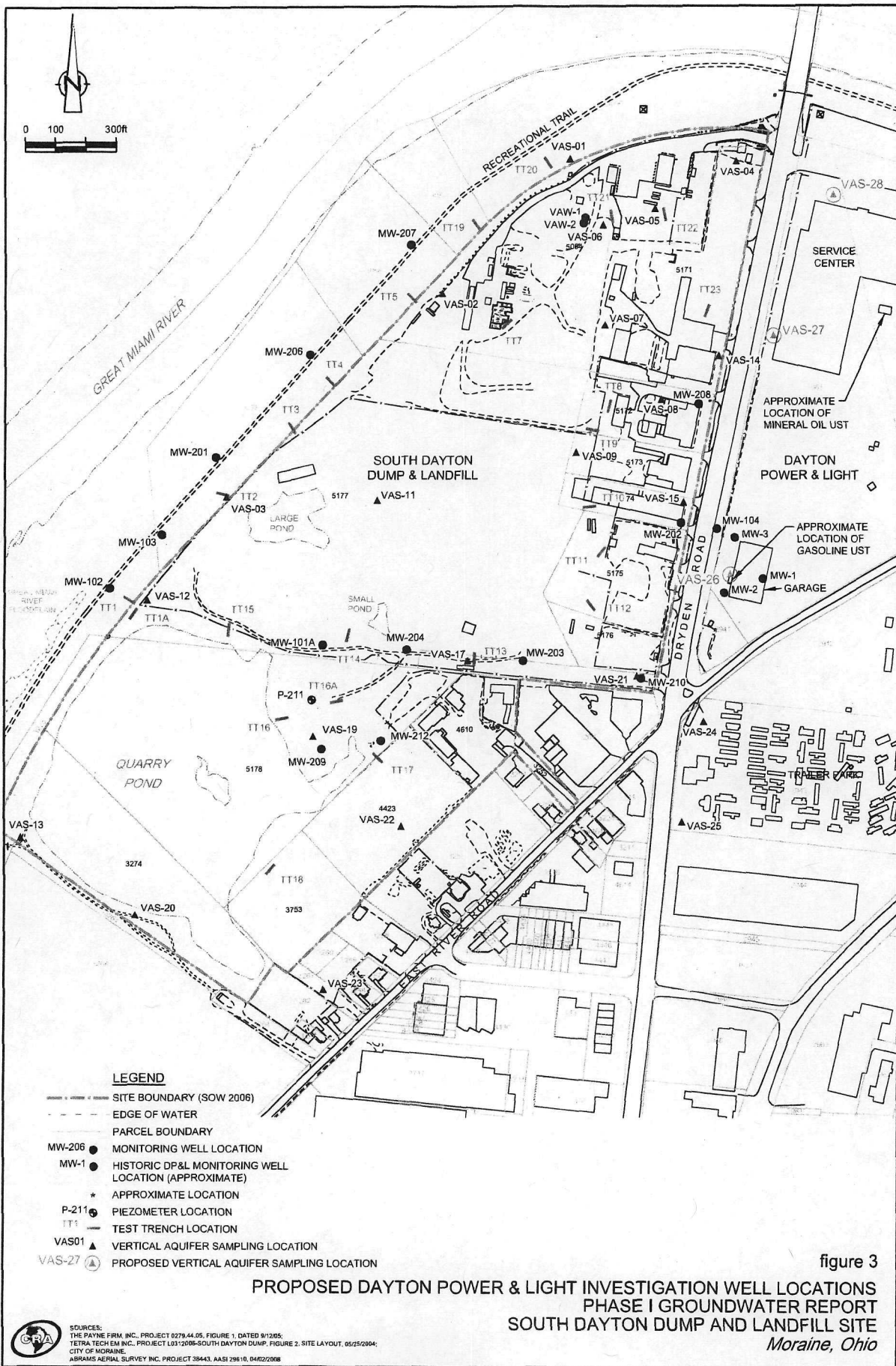
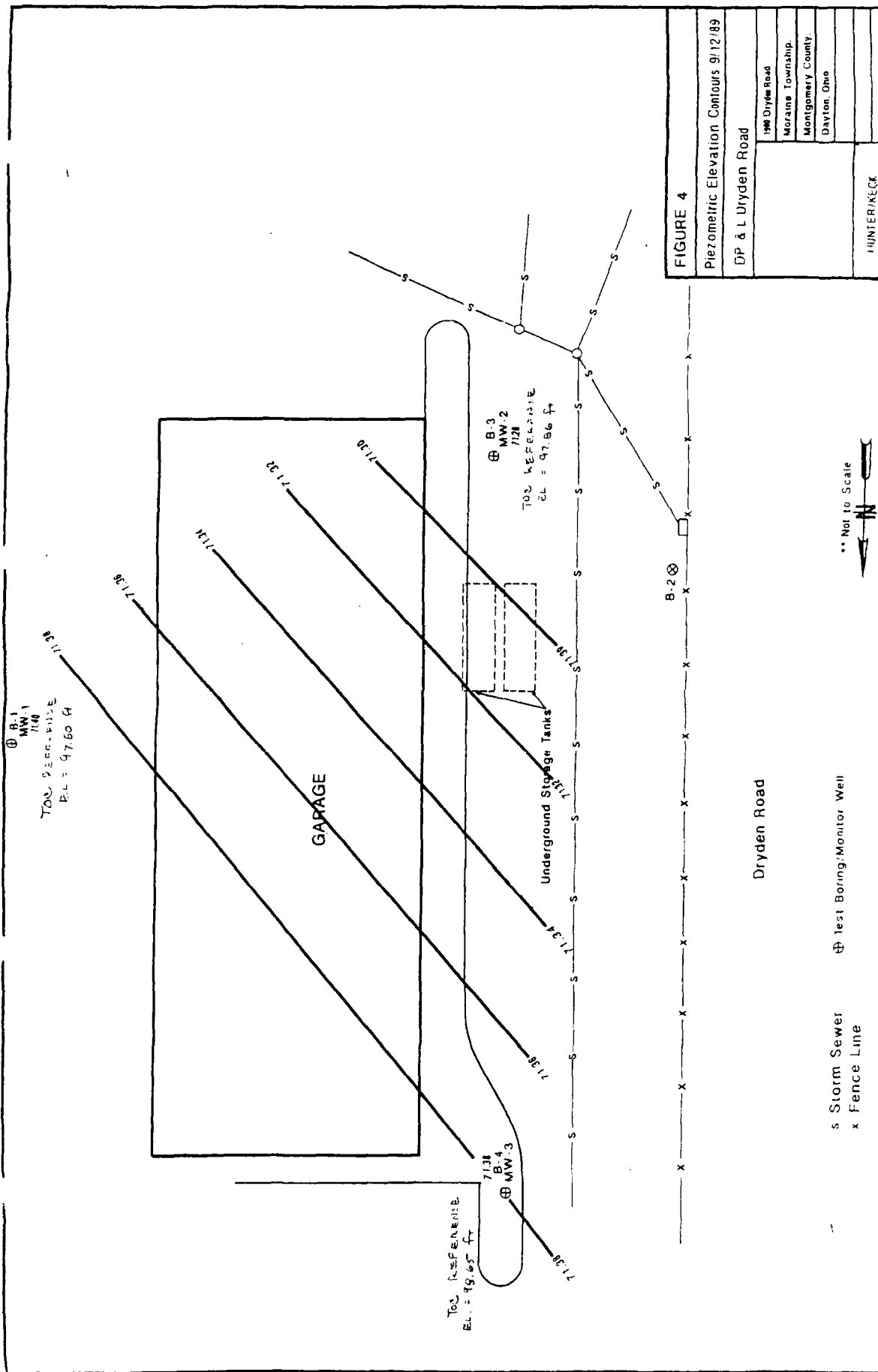


figure 3

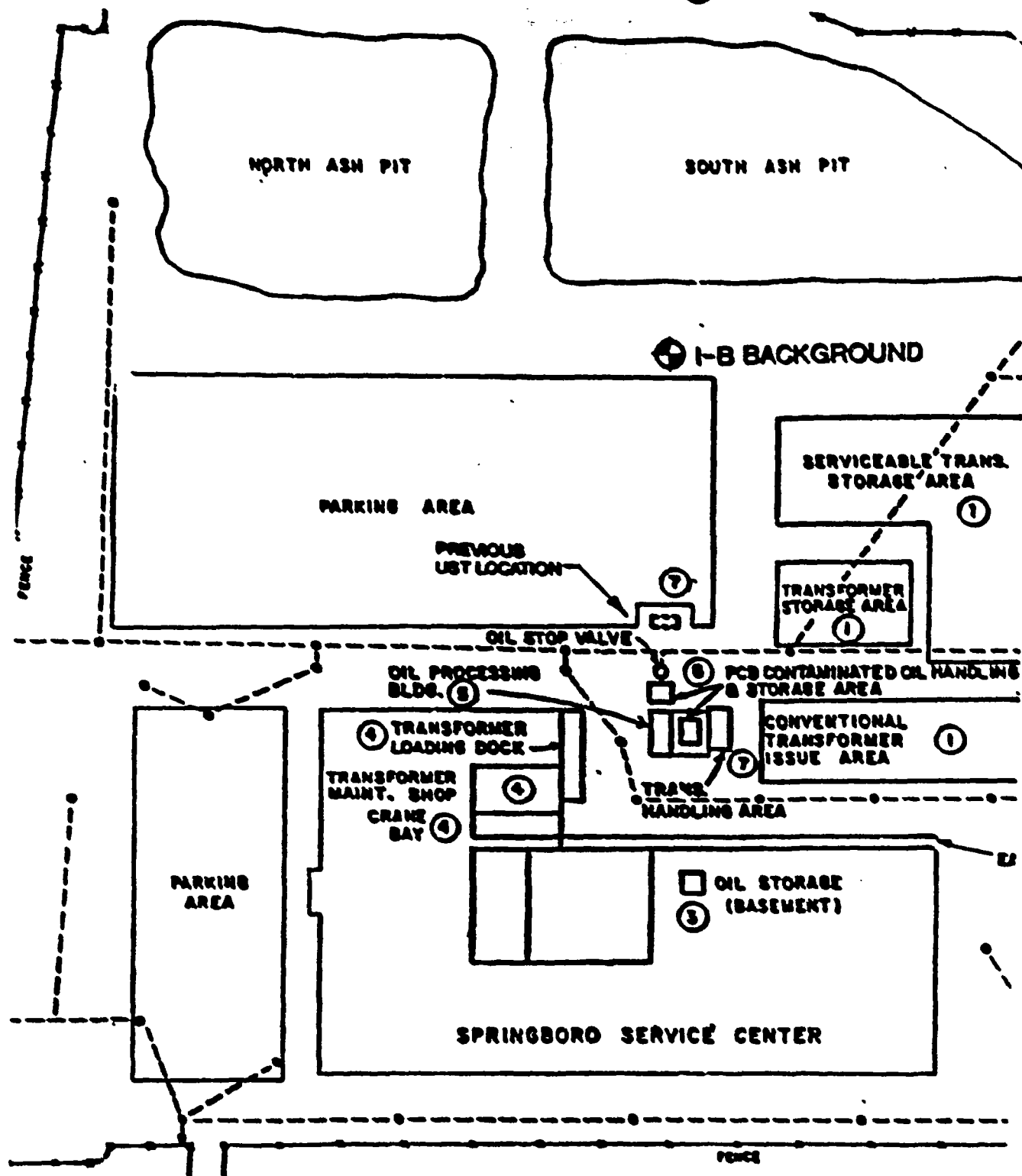
ATTACHMENT A

HUNTER/KECK GROUNDWATER ELEVATION CONTOUR MAP





ATTACHMENT B  
BOWSER-MORNER SITE DP&L SITE PLAN



NOT TO SCALE

## BACKGROUND SAMPLE LOCATION

DP&L DRYDEN ROAD  
51228 2-26-00